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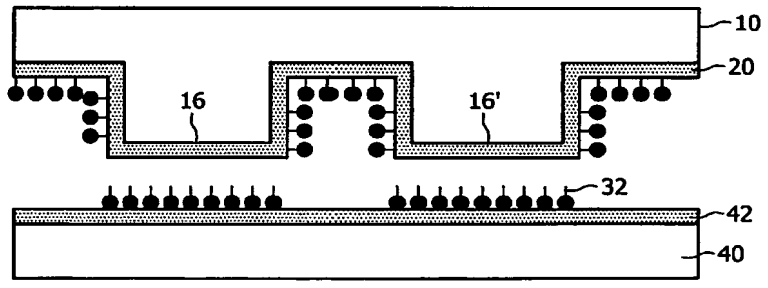
(54) Title: METHOD FOR PATTERNING A SUBSTRATE SURFACE



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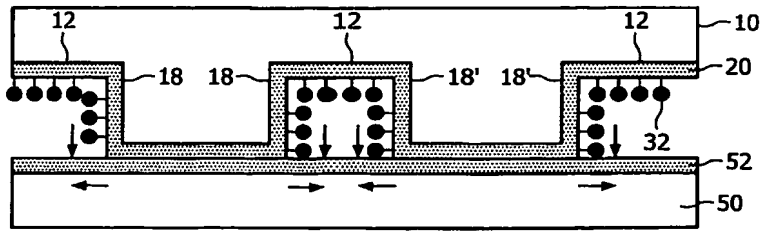

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(57) Abstract: An elastomeric stamp (10) is provided, which has a bulk surface (12) from which protruding features (14, 14') extend. A barrier layer (20) covers the bulk surface (12) and the protruding features (14, 14'). After applying an ink solution to the elastomeric stamp (10) and drying the elastomeric stamp (10), the elastomeric stamp (10) is brought into contact with a surface (42) of a first substrate (40). The surface (42) of the first substrate (40) has a high affinity with the ink molecules (32), which is utilized to effectively remove the ink molecules (32) from the contact surfaces (16, 16') of the protruding features (14, 14'). Subsequently, the elastomeric stamp (10) is brought into contact with the surface (52) of a second substrate (50). Ink molecules 32 are transferred from the edges (18, 18') of the protruding features (14, 14') to the surface (52) of a second substrate (50), thus forming an ink pattern in the form of a selfassembled monolayer on this surface (52). The patterning method of the present invention allows for the formation of high-definition ink patterns on a substrate (50) using a wide variety of inks.

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